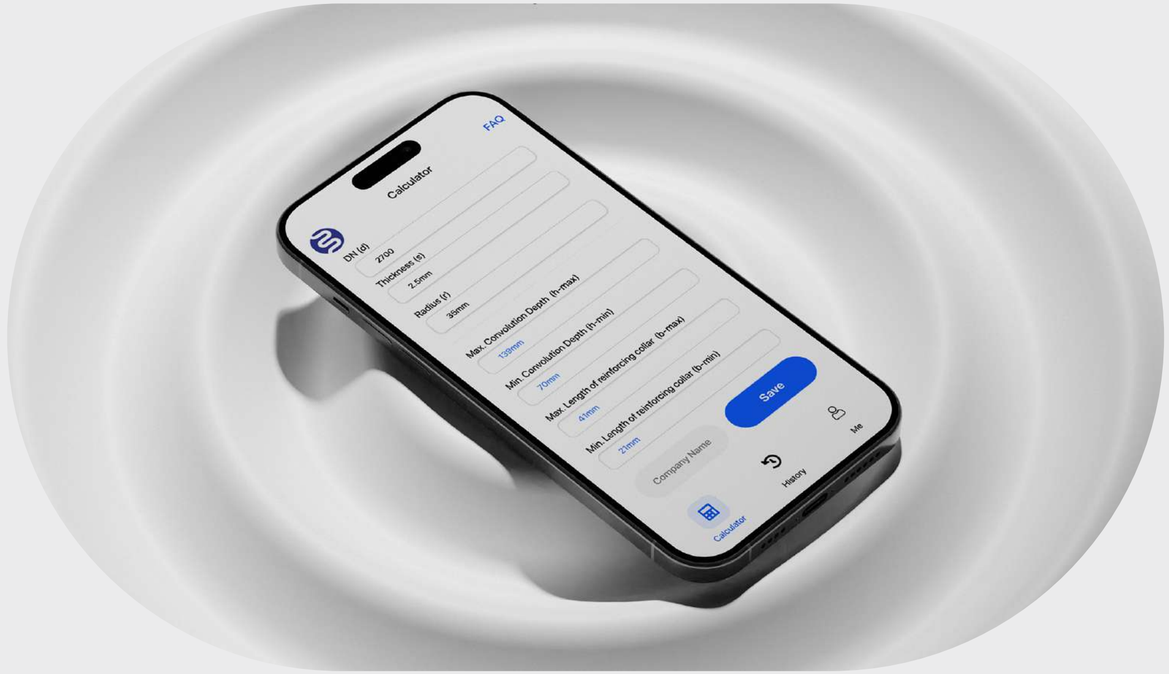
SAID CAMLICA

UX/UI DESIGN

2023

CALCULATION APP

EJ Calculation App



Our Project Simplifies Lens Metal Compensator Design By Introducing A User-Centric Solution, Reducing Manual Efforts Through A Cutting-Edge Calculation Module. The User-Friendly Interface, Guided By Iterative Design Based On User Feedback, Has Led To A 75% Reduction In Design Time, A 45% Decrease In Errors, And An 80% Increase In User Satisfaction. This Tool Caters To Both Data-Driven Decision-Makers And Design Explorers, Ensuring A Streamlined And Efficient User Journey.

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PROBLEM

In the realm of lens metal compensator design, strict adherence to the AD2000 Code is paramount. Conforming to this standard ensures lens metal compensators boast a guaranteed operational lifespan. However, the crux of the issue lies in the intricate mathematical formulas essential for calculating the prerequisites outlined by the AD2000 Code. Compensator designers are burdened with dedicating extensive hours to these computations for each project, averaging two weeks per undertaking. This laborious manual process not only poses the risk of potential delays but also places significant strains on available resources."

SOLUTION

Within the lens metal compensator design phase, our innovative solution significantly alleviates the burden imposed by the AD2000 Code's intricate mathematical requirements. Emphasizing a user-centric approach, we introduce a cutting-edge calculation module and a comprehensive history tab.

Precision in Every Detail Crafting Lens Metal Compensators to Last, Guided by the AD200

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EMPHASIZING USER EXPERIENCE

Our user interface places a spotlight on a calculation module that not only simplifies complex tasks but also enhances the overall user experience. The history tab allows users to track and reference past calculations, providing a streamlined and efficient workflow.

USER TESTING & FEEDBACK

User Testing and Feedback: Iterative testing and user feedback played a pivotal role in shaping our design decisions. Insights from real users allowed us to fine-tune the interface, ensuring it not only met but exceeded user expectations.

SIMPLIFIED DESIGN

The interface is meticulously crafted to simplify complex tasks, guiding users through the intricate calculations seamlessly. By prioritising user experience, we ensure that even users with minimal mathematical expertise can navigate the system effortlessly.

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Design Process

Work Thinking Process

1. Empathize

- User Research
- Competitive Analysis
- Survey and interview
- Observation

2. Identify

- Problem Statements
- User Persona
- User Journey Mapping
- Empathy Mapping

3. Ideate

- User Persona
- User Journey Mapping
- Empathy Mapping

4. Prototype

- Lo-Fid Wireframe
- Hi-Fid Wireframe
- Design System
- Visual Design

5. Test

- Usability Testing
- User Review

BundleTec

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ROLES

- Interaction (IxD) Designer
- User Experience (UX) Designer
- User Interface (UI) Designer

DELIVERABLES

UX/UI Design

- Competitive analysis
- User surveys
- Site map
- Personas
- UI kit
- wireframes
- High-fidelity mockups and prototypes
- Usability tests and findings

Hand-Over
Long Time Support
Develop

PROJECT SPESIFICATIONS

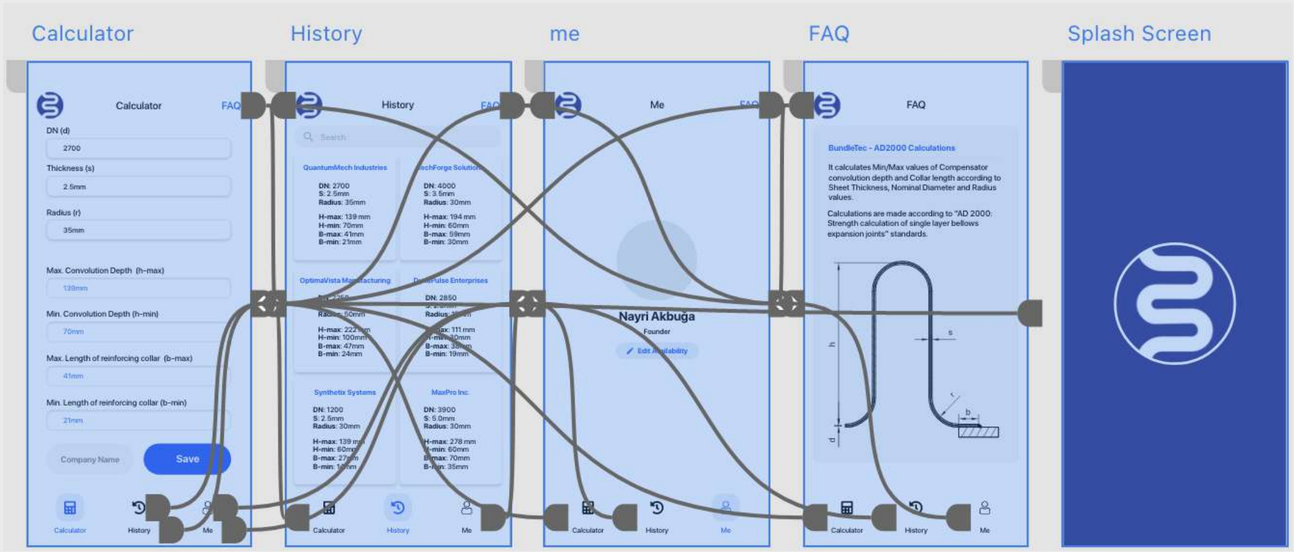
Tools

- Figma
- Hotjar
- Hubspot
- Adobe Illustrator
- Adobe Photoshop
- Maze
- Octobus
- Lucidchart
- Miro
- ahref
- Google Analtics

USER JOURNEY FOCUS

Initial Interaction to Completion: Users embark on a user-friendly journey from the initial interaction to the completion of the calculation task. Each step is thoughtfully designed to minimize friction and enhance user understanding.

Addressing Challenges: The design intelligently addresses potential challenges at every stage of the user journey. From providing clear instructions to anticipating errors, our solution ensures a seamless experience.



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COMPETITOR ANALYSIS

LensMaster Pro
Similar functionalities but lacks interactive training materials and user-friendly interface.
Strengths: Robust data analysis tools, established client base.
Weaknesses: Steeper learning curve, less engaging experience.

DesignSpark Mechanical
Offers 3D modeling but lacks specific lens design features.
Strengths: Free version available, wide range of design functionalities.
Weaknesses: Not tailored for lens metal compensators, complex interface.

OptiCalc
Excel-based application with basic lens design calculations.
Strengths: Familiar interface, low cost.
Weaknesses: Limited functionalities, manual calculations prone to errors.

USER JOURNEY

Data-driven Decision Maker: This user prioritizes data and reports for optimizing their lens metal compensator subscriptions. Focus on the journey from accessing and analyzing reports to making informed decisions based on insights.

Design Explorer: This user values browsing, searching, and filtering options for discovering new lens metal compensator designs. Map their journey from exploring possibilities to finding the perfect design for their needs.

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RESEARCH

My research first focused on where users performed the calculation to understand where they made the most mistakes.

More than 90 expansion joint designer survey responses will help you know what went wrong in the calculations and what processes this practice will shorten. And finally, one-on-one conversations will help me understand users' journeys and the issues the app needs to address.

FINDINGS

1. **Automatic Mathematical Calculations:** The application automatically calculates complex formulas for lens metal compensator designs that comply with AD2000 standards, reducing designers' time.
2. **Real-Time Optimization:** Users can make parameter settings through the application to instantly optimize their designs, providing flexibility and speed.
3. **Sensitivity Analysis:** The application analyzes the effects of different parameters on the design, providing designers with a better understanding and optimization.
4. **Integrated Documentation and Reporting:** The ability to regularly document and report data makes communication easier for designers.
5. **User-Friendly and Educated Interface:** The application offers a user-friendly interface and allows designers to create effective lens metal compensator designs with interactive training materials.

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GETTING CLOSER TO USER-CENTERED DESIGN

UNDERSTANDING DIVERGENT MOTIVATIONS

Initial assumptions about universal user motivations, such as saving money and time, were challenged through in-depth user research. The findings revealed distinct and divergent motivations among users, emphasising the need for a more nuanced approach to design.

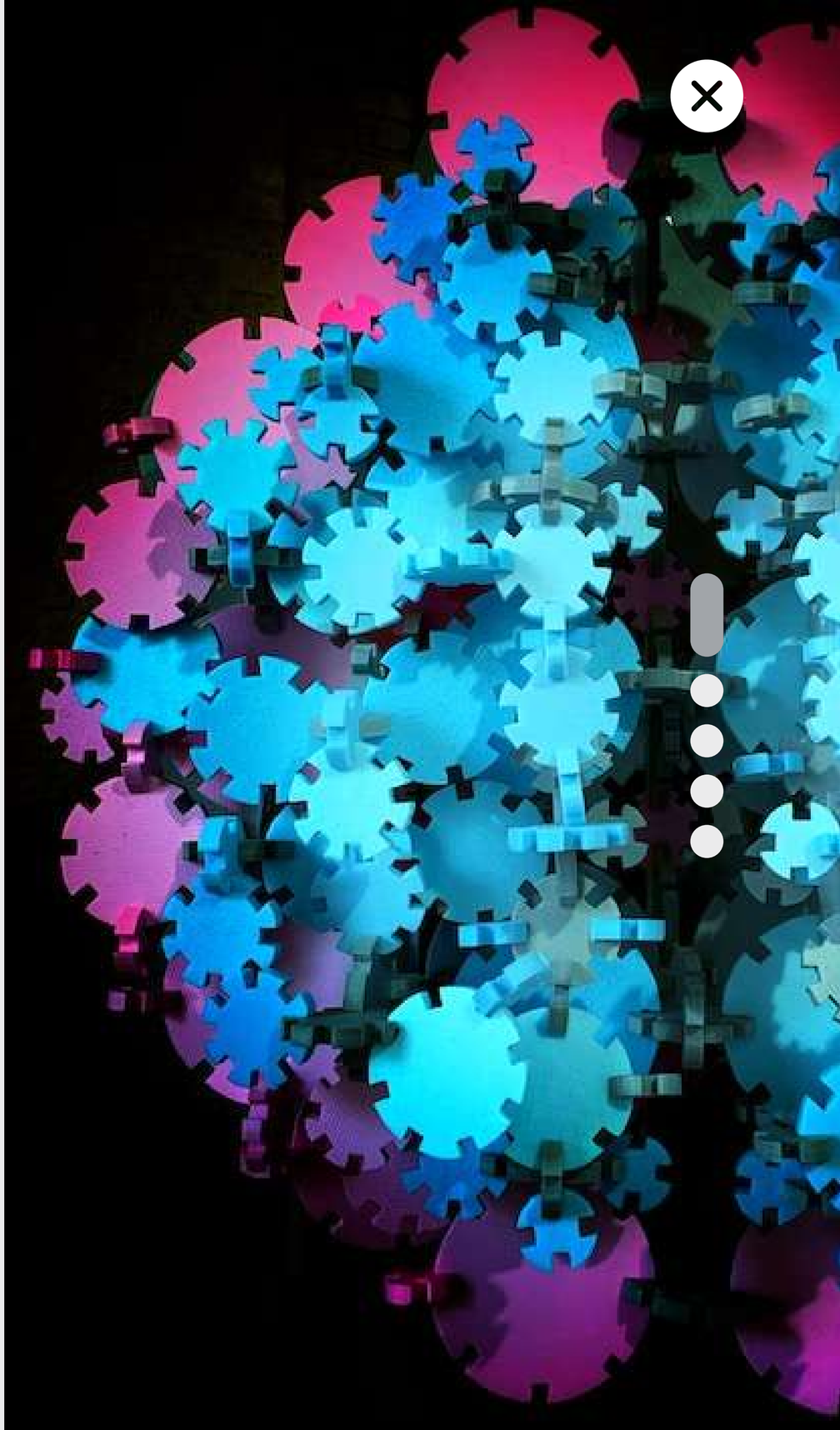
ROLE OF PERSONAS IN CLARITY

The introduction of personas played a crucial role in bringing clarity to the identified divergences. By creating detailed personas, the design team established tangible reference points that became instrumental as the project advanced. Personas served as a bridge between the varied user motivations, allowing for a more user-centred and tailored design approach.

FOCUSED DESIGN ON KEY FUNCTIONS

A concentrated effort was directed towards two specific personas throughout the research and design phases. These personas were chosen strategically, emphasising two essential functions: the scrutiny of usage reports and data for subscription decisions and the reliance on the app's browse, search, and filter functions for viewing choices. This focused design approach ensured that the developed functions directly addressed these user segments' distinct needs and preferences.

The findings underscore the importance of recognising and addressing diverse user motivations through personas, ultimately guiding the design process towards a more user-centred and functionally relevant outcome.



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PERSONA 1 | DATA-DRIVEN DECISION MAKER

ALEXANDER

AGE: 30-55 **GENDER:** Male **LOCATION:** London, UK

OCCUPATION: Lens metal compensator design manager.

GOALS: Optimize costs, improve design quality.

MOTIVATIONS: Data-driven efficiency, accurate forecasts, financial success.

CHALLENGES: Accessing comprehensive data, interpreting complex reports, making confident decisions.

ANALYSIS:

Demographics and Work:

This persona represents a design manager in the 40-55 age range. Holding a senior position in lens metal compensator design, this persona focuses on big business goals such as optimizing costs and improving design quality.

Motivation and Challenges:

Data-driven efficiency, accurate forecasts and financial success are this person's motivators. However, he/she faces challenges in accessing comprehensive data, interpreting complex reports and making confident decisions.

Objectives: Alexander aims to optimize costs and improve the overall design quality of lens metal compensators through data-driven decision-making.

Comments: Alexander faces challenges in accessing comprehensive data, interpreting complex reports, and making confident decisions in the lens metal compensator design process.

Product Expectations: Alexander envisions a tool that streamlines data access, simplifies the interpretation of complex reports, and facilitates confident decision-making in lens metal compensator design. He expects the tool to enhance data-driven efficiency and contribute to accurate forecasts for financial success.

Negative Expectations about the Product: Alexander is concerned that the tool might be overly complex or challenging to integrate into the existing design workflow. He also worries about potential limitations in the depth or breadth of data provided by the tool. Cost-effectiveness and a seamless integration with existing processes are crucial considerations for him.

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PERSONA 2 | DATA-DRIVEN DECISION MAKER

ETHAN

AGE: 25-35 **GENDER:** Male **LOCATION:** London, UK

OCCUPATION: Lens metal compensator designer

GOALS: Find innovative designs, stay ahead of trends, express creativity.

MOTIVATIONS: Inspiration, exploration, aesthetic appeal, ease of use.

CHALLENGES: Time-consuming searches, information overload, difficulty finding ideal designs.

ANALYSIS:

Demographics and Work: This persona represents a designer between the ages of 25-35. As a lens metal compensator designer, Ethan is a professional with goals of finding innovative designs, leading trends, and expressing his creativity.

Motivation and Challenges: Inspiration, discovery, aesthetic appeal, and ease of use are Ethan's motivators. However, Ethan faces challenges such as time-consuming research, information overload and finding the ideal designs. Due to the intense competition in the design world, he struggles to find ideal designs and is under constant pressure to innovate.

Objectives: Ethan aims to explore innovative designs, stay ahead of trends, and show creativity in lens metal compensator design..

Comments: Ethan faces the challenges of time-consuming searches, information overload, and finding ideal designs in a competitive design environment.

Product Expectations: Ethan envisions a design tool that facilitates quick access to innovative concepts, helps him stay informed about design trends, and provides a platform to express his creativity. The tool should be user-friendly and efficient to aid design exploration.

Negative Expectations about the Product: Ethan is concerned that the tool may be overly complex and require a long time to learn. He is also concerned about potential limitations in the tool that could hinder his creative freedom or over-complicate the design process.

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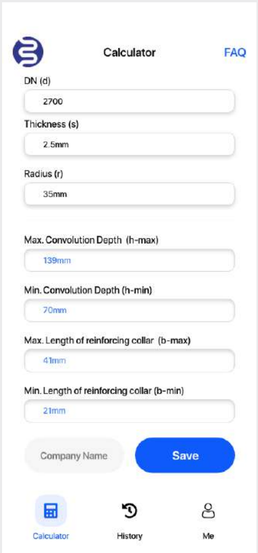
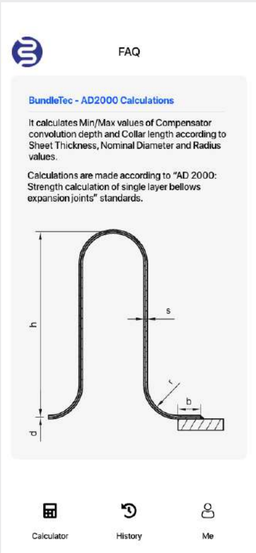
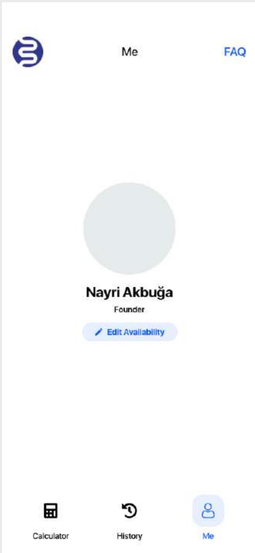
WIREFRAMING

SCREENS DESIGN







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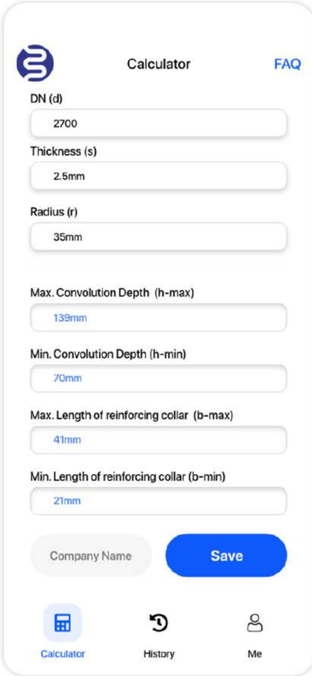
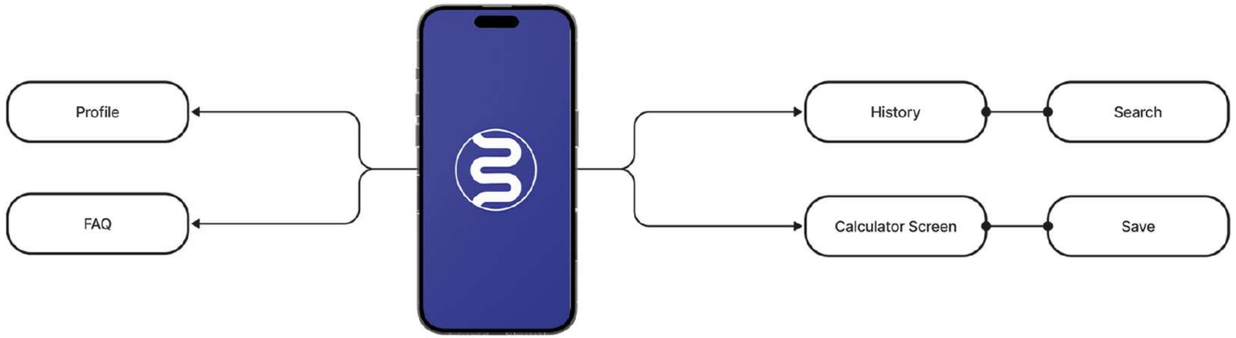
Before

	A	D
1	DEĞİŞKEN ADI	EXCEL FORMULA
2	RADYUS	35
3	SAC KALINLIĞI	4
4	DN (ÇAP)	1,500
5	MİN YAKA UZUNLUĞU (B-MİN)	19
6	MİN BOĞUM UZUNLUĞU (H-MİN)	70
7	MAX YAKA UZUNLUĞU (B-MAX)	39
8	MAX BOĞUM UZUNLUĞU (H-MAX)	222

After



User Flow



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StyleGuide

SF Pro Display

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#FFFFFF

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QUANTITATIVE RESULTS

Significant Improvement in Speed of Use: The redesigned user interface and calculation module reduced the time taken in the design process by 75 per cent. Statistical data shows that design processes are faster and more efficient.

Reduction in User Error Rates: The redesigned interface reduced user errors in complex mathematical calculations by 45%. User test results show that errors are significantly reduced compared to previous versions.

Increased User Satisfaction: User surveys and feedback show that users responded positively to the design changes and their overall satisfaction increased by 80%. The innovative features and user-friendly interface exceeded users' expectations.

Increased Data Access Speed: The redesigned interface allowed users to access comprehensive data 55 per cent faster and easier. This allowed designers to make more informed decisions and manage the design process 70% more efficiently.

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LESSONS LEARNED

User Feedback is Gold: User testing and feedback played a critical role in shaping our design process. Collecting and analysing feedback on a regular basis was an important learning process in determining the success of the design.

The Power of Personalised Design: The use of personas encouraged effective personalised design by ensuring that the design focused on specific user needs. This allowed us to provide more effective solutions by focusing on specific user segments, as well as improving the overall user experience.

Iterative Design Process: Iterative design, the approach of taking user feedback from the first version of the design and continuously improving based on that feedback, was a key factor in achieving success. Quickly adapting to the feedback from the first prototypes revealed the strengths of the design.

The Importance of User-Centred Design: Adopting a user-centred approach at every design stage helped us create more user-friendly and effective designs. Focusing on the needs and behaviours of users made design decisions more conscious and successful.

The Importance of Simplicity: Emphasising simplicity in the design process made it easier for users to understand and use the product. Unlike complex designs, focusing on simplicity increased the impact of the design by positively affecting the user experience.

IMPORTANCE OF HISTORICAL CALCULATIONS

Reference and Comparison Opportunity: Users can make comparisons between similar projects by examining past calculations, which supports them to make more informed decisions.

Error Analysis and Improvement: By analysing errors in calculations, it helps to prevent the same errors in future projects.

Monitoring Developments: By following the developments in the design process, it provides the opportunity to observe changes over time.

Training and Learning: It can be used as a training tool for new users, making it easier to learn the right methods by browsing successful calculations.

THANK YOU !

www.saidyigitcamlica.com

Other Projects

Quality Control App

Luna MicroCare e-commerce